

ABSTRACT OF THE DISCLOSURE

A detecting device includes an optical pickup which receives a first reference potential supplied thereto through a transmission line, sets the potential to a second reference potential affected by a noise component in the transmission line, generates detection signals from photodetector on the basis of the second reference potential, and outputs the detection signal and the second reference potential through the transmission line; and differential amplifiers which receive the detection signal and the second reference potential from the optical pickup through the transmission line to output potential difference between the detection signal and the second reference potential. The detecting device can remove the noise from a cable.